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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/508,771	03/16/2000	JINKO KIMURA	500.38296X00	8406

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EXAMINER

WALKE, AMANDA C

ART UNIT	PAPER NUMBER
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1752

DATE MAILED: 01/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/508,771

Applicant(s)

KIMURA ET AL.

Examiner

Amanda C Walke

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 September 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10, 12-19, 21-25 and 27-43 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10, 12-19, 21-25, and 27-43 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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DETAILED ACTION

Claim Interpretations

The claims contain the limitation that the number of claimed fish eyes does not exceed 5 fish eye/m² when measured under a microscope at a multiplication of 100. It is the examiner's position that the requirement of measuring the film under a microscope does not further define the claimed material. The protecting film (C) would contain the same number of fish eyes at the given diameter no matter how it is evaluated.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-10, 13- 19, 21-25 and 28-43 are rejected under 35 U.S.C. 102(b) as being anticipated by Taguchi (US 4,360,582).

Taguchi teaches a photopolymerizable element comprising a layer of a photopolymerizable composition and a film support made of a transparent material. In order to produce a resist image on a substrate, the photopolymerizable layer is applied to a substrate, exposed imagewise to actinic radiation and developed to form an image (c. 3, 1. 20-46). The said element may further comprise a strippable protective film provided on the other surface of the photopolymerizable composition layer for preventing blocking at the winding step and adhesion of dust during handling (c. 3, 1. 62-68). Appropriate materials for the said protective film include polyethylene terephthalate, polypropylene film, polyethylene film, cellulose triacetate film, polyamide and polyethylene laminated

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paper (c. 10, 1. 1 5-23). Taguchi teaches that the thinner the photopolymerizable layer, the more the resolution is improved (c. 9, 1. 1 7-19). Example 1 exemplifies a solution comprising poly(methyl methacrylate) as an organic binder, a photopolymerization monomer, and a photoinitiator coating onto a 50 micron thick polypropylene film and dried to form a photopolymerizable layer having a dry thickness of 10 microns. The said layer was then laminated onto a 20 micron-thick poly(methyl methacrylate) support film. The polypropylene film was then stripped and the said layer was laminated to a treated copper-clad epoxy resin fiberglass substrate. The formed element was then exposed to actinic rays and developed to form a negative image. An etching process was then performed to remove the copper at the areas unprotected by the resist image (c. 1 6, 1. 30-c. 1 7, 1. 1 7). While Taguchi is silent on fish eyes, it clearly teaches the use of a polypropylene protective film, which clearly anticipates the limitations of the instant claims (see instant claims 4 and 28).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 12 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Taguchi (US 4,360,582 A) as applied to claims 1-10, 13-19, 21-25 and 28-37 above, and further in view of Hoffmann (US 4,710,446 A).

Taguchi as discussed above teaches all the limitations of the instant claims except the specific initiators set forth in instant claims 12 and 27. Taguchi does however teach

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that the photopolymerizable layer comprises a photopolymerization initiator wherein the kind of initiator to be used is not particularly critical and any known photopolymerization initiator can be used (c. 6, 1. 42-45). It is the examiner's position that 2,4,5-triarylimidazole dimer is a well-known and conventional photoinitiator. This position is supported by the teachings of Hoffmann which teach that photoinitiator systems conventionally used for resist layer include benzophenone, 2,4,5-trialylimidazole dimers and mixtures thereof (c. 6, 1. 9-27).

Response to Arguments

5. Applicant's arguments filed 9/24/2004 have been fully considered but they are not persuasive.

Applicant has argued that the examiner is incorrect in stating that the requirement of measuring the film under a microscope does not further define the claimed material. The protecting film (C) would contain the same number of fish eyes at the given diameter no matter how it is evaluated. The examiner notes that the instant claims are product claims, and that the fish eyes would be present in the material regardless of the method of evaluation, thus, the examiner maintains the position that this does not further limit the claim.

Applicant has also argued that the Taguchi et al reference fails to teach the specifically claimed protective film. While Taguchi states that the film may be added, it is clearly a preferred addition to the photographic element (employed in example 3). Additionally, applicant has argued that the film of Taguchi would not inherently possess the fish eyes required by the instant claims. Applicant has stated that the fish eyes are caused by the specific preparation method of the film, and that the Taguchi reference fails

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to teach this method of production. The examiner notes that the instant claims are drawn to a product, not a method, thus, absent evidence to the contrary, the examiner maintains her position that the protective film of the Taguchi reference inherently meets the instant claim limitations for the number and size of the fish eyes.

Applicant has also argued that the Hoffman reference does not correct the deficiencies of the Taguchi reference. Given that the examiner has maintained the Taguchi rejection and that Hoffman does teach a well known photoinitiator, the examiner also maintains the rejection of the instant claims 12 and 27 over Taguchi in view of Hoffman.

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

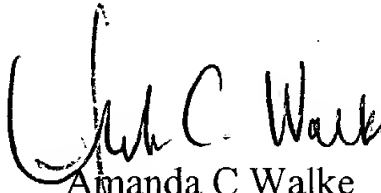
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amanda C Walke whose telephone number is 571-272-1337. The examiner can normally be reached on M-R 5:30-4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia Kelly can be reached on 571-272-1526. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Amanda C Walke
Examiner
Art Unit 1752

ACW
January 10, 2005